

the Surgeon-Major has promised us, merely (from a misguided motive of economy) to save a few rupees to the Indian treasury.

It only remains for us to say that the book, which has been printed in Calcutta, is most creditably got up*, and that we strongly recommend it to our readers.

A Flora of Ulster, and Botanist's Guide to the North of Ireland.

By G. DICKIE, M.D., Prof. of Botany, Aberdeen. 12mo. Belfast, 1864. London: Reeve & Co.

WE little thought, when noticing Mr. Tate's 'Flora Belfastiensis' in our April Number, to receive so soon another book treating upon the botany of the same part of Ireland, but extending its range considerably further. It might have been well if the authors had each known of the other's intention, as one book would have had more chance of success than two.

Dr. Dickie was resident for some years at Belfast, and then took notes of all the plants of which he ascertained the existence in the north of Ireland, by which he means that part of the island lying to the north of the 54th degree of latitude. In so defining his district we think that he has not been wise. It would have been better to confine himself to Ulster, and include the whole of that; for he has now omitted a small piece of two counties, Monaghan and Cavan. He would then have had a well-defined field in which to work: and if in this field he had divided his localities into groups, according to the three botanical provinces—28. Erne, 29. Donegal, and 30. Ulster Coast (which are laid down in the 'Proceedings of the Dublin University Zoological and Botanical Association,' i. 246, and the original 'Natural History Review,' vi. pt. 2. 533)—he would have facilitated the compilation of the much-wanted 'Cybele Hibernica.' It is true that we may arrange the localities for ourselves, if we think fit so to do; but there are many plants stated to be "frequent," of which it is impossible to learn, from the information given by Dr. Dickie, whether that frequency extends throughout Ulster or is more limited in extent. Certainly we do rather wonder that Dr. Dickie, who has shown the interest which he takes in the geography of plants by his most valuable remarks upon the altitude at which they occur, should have neglected to subdivide his country into districts, both here and in the 'Botanist's Guide to Aberdeen, &c.,' after the mode which has been found so useful in the more recent English local floras. We consider this a serious omission; and there is another deficiency which forcibly strikes us. Dr. Dickie manifestly takes no interest in what are called "critical" plants. It is the distribution of that class of "species" which we especially desire to learn; and there is nothing in this book to convey information on that subject.

* One clever gentleman of our own craft takes credit to himself for the discovery that Dr. Jerdon has, at page 16 of Volume I., made the mistake of calling the Condor *Sarcorhamphus papa*, and the King-Vulture *S. gryphus*, without acknowledging that this mistake is corrected in the author's own list of "Errata" prefixed to the volume!

But we have done fault-finding, and have much pleasure in praising the book in other respects. The Introduction is a valuable contribution to our knowledge of the range in altitude of Irish plants. We are not aware that any accurate data previously existed on that subject, which the peculiar climate of Ireland renders of more than ordinary interest. It is remarkable that there is a decided fall in the upper limits of some plants in Ireland when compared with those to which they attain in Scotland. Dr. Dickie mentions the following instances:—

Euphrasia officinalis in North-east Scotland attains 3400 feet; in North-east Ireland, 2400; in Mayo, only 1700. The corresponding numbers for *Melampyrum pratense* are 3000, 2200, 1900; for *Pinguicula vulgaris*, 2800, 2000, and 800; *Orchis maculata*, 3000, 1950, 1800; and *Carex binervis*, 3000, 2000, 1800. This is the more remarkable when we remember that the climate is believed to rise in temperature as we proceed from South-east Scotland by Ulster to Mayo. May we attribute the superior range in Scotland to the direct sunlight, of which there certainly is much less in cloudy and rainy Mayo than in Ulster, and especially than in Aberdeenshire?

We have stated our belief that the book is not improved by the addition of an imperfect list of the plants of a small part of northern Mayo, and nearly the whole of Sligo; for as a Flora of Ulster it may justly claim to be tolerably complete (according to its author's views of species), but as treating of the whole north coast of Ireland it cannot have any such claim. We are far from wishing the western plants to have remained unrecorded; but it would have been more convenient to have found the list of them placed as an appendix to the Ulster list. There is very much still to be done before we shall know accurately the plants of the far west. Who has examined the wild mountains in the interior of Erris, called the Nephin Beg range? or who, except the present writer, has botanized in the Mullet? If these districts have been explored, we know of no published account of the results. Both lie to the north of the 54th degree.

Let us now turn to the species, and place side by side the Floras of Tate and Dickie. We have already remarked that the latter seems to care nothing about critical plants: here, therefore, we at once meet with a marked difference between the books. One example will suffice, and we will take the first. Tate records *Ranunculus peltatus*, *R. Drouetii*, *R. Baudotii*, *R. circinatus*, and *R. hederaceus*. In place of these, Dickie gives for the same district *R. aquatilis*, *R. tripartitus*, and *R. hederaceus*. Here *R. aquatilis* of course includes the first three of Tate's species; but what has become of *R. circinatus*, which no botanist who has paid any attention to it can doubt being distinct; and what is *R. tripartitus*? Surely the latter is not the true plant. The former appears, in Dr. Dickie's Supplement, as a plant about which some doubt may be entertained; but Mr. Tate and Mr. Stewart have both gathered it. This instance will suffice to show that Tate's Flora is necessary, in addition to Dickie's, if we require complete information of what is known about the plants of Ulster.